Before the

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Inquiry Concerning Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion	)	GN Docket No. 17-199

COMMENTS OF THE CITY OF NEW YORK

I. Introduction

The New York City Office of the Chief Technology Officer and the Department of Information Technology and Telecommunications submit these comments on behalf of the City of New York (the "City") in connection with the proceeding listed above. The City appreciates and supports the efforts of the Federal Communications Commission (the "Commission") to accurately determine the scope of deployment of advanced telecommunications capability in a manner that generates results that can be easily compared year after year. The City also supports the Commission's proposal to measure and report on deployment of mobile broadband services. However, the City is concerned that some of the proposed changes in the Commission's Section 706 Report Notice of Inquiry ("*Inquiry*")[1] would lead to the creation of a report that would seemingly inflate the level of access that Americans have to advanced telecommunications capabilities.

II. The Commission Should Evaluate Deployment Based on the Presence of Both Fixed and Mobile Services

The City supports evaluation of advanced telecommunications capability using technology-neutral definitions that are focused on consumer use and experience. Mobile services should be included in the *Inquiry*, but should not be conflated with fixed services as if there are no differences in the technical reality of the service provided or the policy choices of the companies offering service. While mobile services are very popular, they do not offer all the features of fixed services, nor do they offer them at the same quality. Compared to fixed services, mobile services, for example, are typically lower speed; have very low data caps; and are less reliable.[2] Further, because of data caps, speed, and tethering restrictions, use of mobile services with laptops or desktops is currently not a comparable replacement for the use of fixed services, which can support different types of work.[3]

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[1] Federal Communications Commission, *Thirteenth Section 706 Report Notice of Inquiry*, GN Docket No. 17-199 (Aug. 8, 2017) (hereinafter "*Inquiry" or "*NOI*"*).

[2] NOI at ¶¶ 18-19 and accompanying footnotes (noting that fixed and mobile broadband services have different capabilities, and that mobile broadband "cannot achieve the same kinds of consistent speeds" and "lack the capacity or consistency of service to support most bandwidth intensive uses. *citing 2016 Report*, 31 FCC Rcd at 717-18, ¶ 41).

[3] *Id.*

For these reasons, the Commission should evaluate deployment of both fixed and mobile services, but should evaluate them as separate and distinct ways to achieve advanced telecommunications capability, with one not substitutable for the other in the context of evaluating whether such capability "is being deployed to all Americans in a reasonable and timely fashion."[4] It should not assume that availability of a mobile service means that a population has access to advanced telecommunications capabilities, unless the Commission adopts high standards for advanced telecommunications capabilities in the mobile context.[5] That the cost per increment of capacity, speed, and other measurements of telecommunications capability tends to be higher with respect to mobile service should also be taken into account in evaluating the degree to which mobile services can be characterized as providing "reasonable" (that is, reasonably available) deployment to all Americans.

III. The Commission Should Adopt New Measures of Advanced Telecommunications Capabilities

The FCC asks whether it should "maintain the current speed benchmark of 25 Mbps download and 3 Mbps upload (25 Mbps/3 Mbps) for fixed broadband, and . . . seek[s] comment about other potential benchmarks."[6] The City supports the continued use of the current speed benchmark of 25 Mbps/3 Mbps down/upload for fixed services for the sake of comparison year-over-year, though it believes the benchmark speeds are too low.

The City also believes the FCC should incorporate measures of latency and consistency of service. Latency and consistency are central to the user experience, and should be included in the measurement of advanced telecommunications capabilities. The FCC should go farther and also inquire into whether providers limit the amount of data that may be downloaded in a month (a data cap) and what that data cap is. Currently, fixed broadband providers generally offer caps in the multiple hundreds of gigabytes(GB)/month.[7] This *Inquiry* should determine whether fixed providers have data caps and what they are, and future inquiries should set a minimum monthly amount of data available to users as a benchmark for advanced telecommunications capability.

IV. The Commission Should Adopt the Same Definition of Broadband It Applies to Fixed Services to Mobile Services

The FCC asks how it should evaluate advanced telecommunications capability in the mobile context.[8] The City believes that a technology-neutral approach to ensuring that all Americans have access to advanced telecommunications capabilities and the uses enabled by that technology demands applying the same definition in the fixed and mobile contexts.

The FCC should adopt the same speed benchmark it uses to evaluate fixed services, 25 Mbps/3 Mbps, assuming the FCC decides to continue using the benchmark it has applied in the past. If that speed is

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[4] NOI at ¶ 9.
[5] *Infra*, at IV.
[6] NOI at ¶ 12.
[7] *See, e.g.*, *Internet Providers with Data Caps*, BroadbandNow (last visited Sept. 20, 2017), https://broadbandnow.com/internet-providers-with-data-caps.
[8] NOI at ¶ 17.

necessary to use online services using fixed providers, then users attempting to use those services with the offerings of mobile providers must need the same speed. Similarly, the FCC should adopt the same benchmarks for latency, reliability, and data caps that it applies to fixed services. In regards to data caps, the City understands that in 4G and 4G LTE use cases, the technical and deployment realities of service providers' capacity may not allow them to have data caps as high as the multiple hundreds of gigabytes, or even terabytes, per month that fixed providers allow. However, the imposition of caps on mobile service significantly lower than those imposed on fixed services should foreclose the consideration of a mobile service as an advanced telecommunication capability, even if that leads to a determination that current 4G LTE deployments are not advanced telecommunications capabilities.

Similarly, the FCC should adopt standards surrounding limitations on tethering by mobile providers. While fixed broadband providers allow users to operate an essentially unlimited number of devices over their connections, mobile providers often place limits on users' ability to tether devices to their smartphones and share an internet connection with their tablet, laptop, or other device. As these other devices are often necessary because of the limited productivity capabilities of many smartphones, restrictions on tethering significantly limits the utility of mobile services. Mobile services with restrictions on tethering devices should not be considered advanced telecommunications capability.

The FCC should proceed with caution in any attempt to set mobile or fixed broadband speed or other benchmarks based on what services and speeds consumers are choosing. Consumers have few options in broadband providers and are further constrained by what providers are offering and the cost of those services.[9] To determine a particular speed below the 25 Mbps/3 Mbps benchmark is appropriate for either fixed or mobile broadband risks mistaking consumer choices made based on significant constraints for an indication of what consumers want or what they intend to do with their service.

V. The Commission Should Calculate Deployment of Broadband More Granularly

The FCC notes that it previously calculated deployment of fixed broadband capability at the census block level, and proposes to use the change in this measurement over time as part of its *Inquiry*. The City believes that census blocks are not granular enough to determine where and to whom advanced telecommunications capabilities are not being deployed. Instead, the FCC should measure deployment of fixed broadband to particular addresses, and compare deployment in the subset of all U.S. addresses year-over-year. This could be accomplished by setting standards for geocoding of addresses by fixed and mobile wireless providers, who could submit a list of such geo-coded addresses that they actually serve, with adequate measures, including encryption, to ensure customer privacy. There are a number of practical problems in measuring mobile deployment, most notably in determining where service is actually used. Deployment of advanced telecommunications capabilities by mobile providers could be best measured by the submission of propagation models based on standardized measures. This should allow for an easy and accurate comparison of the providers' coverage areas against population maps.

[9] *Internet Access Services: Status as of June 30, 2016*, Federal Communications Commission, Industry Analysis and Technology Division, Wireline Competition Bureau, 6 (April 2017) (finding that more than half of Americans have one or no providers offering broadband access at 25 Mbps/3 Mbps).

VI. Conclusion

The City supports the Commission's ongoing efforts to update the *Inquiry* to collect and report on useful data about the provision of advanced telecommunications capabilities and requests that the Commission set benchmarks and standards that accurately reflect the scope of deployment of these capabilities, particularly in the context of mobile services.

Respectfully,

The City of New York

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